

REMARKS

This application has been carefully reviewed in light of the Examiner's action dated August 22, 2005. Claims 1, 7, 8 and 10-12 have been amended, Claim 9 has been cancelled without prejudice and Claims 27-34 have been added. Reconsideration and full allowance are respectfully requested.

In the August office action, the Examiner objected to the form of Claim 1. Appropriate correction has been made, and it is submitted that this objection has been overcome.

The Examiner also rejected Claims 1-9 and 12 under 35 USC 102(b) as being anticipated by U.S. Patent No. 4,545,396 to Miller, et al. (hereafter "Miller") For the reasons set forth below, this rejection is respectfully traversed.

As presented, independent Claim 1 is directed towards liquid delivery system for horticultural applications. The system includes a controller device that is electronically connectable to a zone watering control system. The controller is operative to generate and transmit fluid control signals to selectively control the flow of a pressurized fluid to a plurality of fluid delivery zones. Controllers are also configured to be electrically connectable to at least one additive injector for introducing liquid additives into a flow of pressurized fluid. In order to provide a closely controlled amount of additive to the flow of pressurized fluid, the controller is also configured to generate a number of injection pulses that selectively control the injection of corresponding number of slugs of liquid additives into the pressurized fluid flow. For instance, when utilizing a solenoid operated piston pump, each injection pulse may be operative to actuate the pump one-time and thereby inject one slug having a predetermined volume into the pressurized fluid flow. The number of injection pulses is generated in accordance with at least a first criteria associated with the fluid control signals. For instance, these criteria may include user instructions associated with each fluid delivery zone. In

any case, the use of injection pulses allows for the controlled injection of predetermined amounts of liquid additive. Accordingly, use of such a system allows for tightly controlling the amount of liquid additive injected into a pressurized fluid flow and thereby delivered to a fluid delivery zone.

In contrast, Miller fails to disclose a liquid delivery system wherein a controller that is electrically connectable to a zone watering system and selectively controls the flow of pressurized fluid flow with plurality of delivery zones also generates a number of injection pulses that selectively control the injection of a corresponding number of slugs of liquid additive into the pressurized fluid flow. Rather, Miller simply discusses the use of the computer to “turn on the fertilizer injector pumps. . . computes the required fertilizer application levels and rates and controls the fertilizer injector pumps to inject the fertilizer at the appropriate rate.” See Column 5 lines 35-45. Miller is silent to the utilization of a number of injection pulses that allow for injection of a corresponding number of individual slugs of liquid additive. Accordingly, Miller fails to disclose inter alia, a system that allows for tightly controlling the amount of liquid additive that is injected into a pressurized fluid flow. Accordingly, Applicant respectfully requests that this rejection be withdrawn.

The Examiner also rejected Claims 10 and 11 under 35 USC to being unpatentable over Miller in view of U.S. Patent No. 5,022,585 to Burgess and U.S. Patent No. 4,917,304 to Mazzei, et al, respectively. These rejections are respectfully traversed.

Initially, applicant notes that Claims 10 and 11 each depend from an allowable independent claim. Accordingly, Claims 10 and 11 are allowable for the reasons set forth above and Applicant respectfully requests that these rejections be withdrawn.

However, for purposes of completeness, applicant notes that Burgess and Mazzei each fail to disclose the use of injection pulses to control the injection of a number of individual slugs of liquid additive into a pressurized fluid flow. Rather, these patents disclose the use of pumps that are run for

a predetermined time in order to provide additive during operation of each fluid zone. See Column 2, lines 5-15, Burgess, and Column 6, lines 51-62, Mazzei. Accordingly, neither of these patents alone or in combination with Miller disclose the use of a number injection pulses to controllably inject a predetermined number of liquid additive slugs having a predetermined volume into a pressurized fluid flow.

Based upon the foregoing, Applicants believe that all pending claims are in condition for allowance and such disposition is respectfully requested. In the event that a telephone conversation would further prosecution and/or expedite allowance, the Examiner is invited to contact the undersigned.

Respectfully submitted,

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